

ABSTRACT

A medical device having a catheter and one or more expandable constricting/occluding members. The catheter is adapted for use with therapeutic or diagnostic devices, including an angioplasty/stent catheter and an atherectomy catheter. A first constrictor/occluder mounted at the distal end of the catheter is adapted for placement in a brachiocephalic or subclavian artery. A second constrictor mounted proximal to the first constrictor/occluder is adapted for placement in the descending aorta. Pressure measuring devices may be included, and filters may be used to capture embolic debris. Methods of using the devices for preventing distal embolization during extracranial or intracranial carotid procedures or vertebral artery procedures by augmenting collateral cerebral circulation by coarctation of the aorta to enhance reversal of blood flow in an internal carotid artery, an external carotid artery, and/or a common carotid artery toward the subclavian artery are disclosed.